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EXAMINER

BATES, KEVIN T

ART UNIT PAPER NUMBER

2155

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,893

Applicant(s)

PIERCE ET AL.

Examiner

Kevin Bates

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) 24-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This Office Action is in response to a communication received on August 28, 2006.

Claims 24-31 have been withdrawn from consideration.

Claims 1-3, 6, 9-14, and 16 have been amended.

Claims 1-3 and 5-16 are currently pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerrigan (5404488) in view of Roeber (5682328) and in further view of Victor (6651030).

Regarding claim 1, Kerrigan teaches a method of logging and trending measurement data (Abstract), the method comprising:

a logger application executing on a first computer system receiving a measurement stream comprising a plurality of real time data values (Column 1, lines 44 – 48, where the logger application is the real time engine which interfaces with the data feeds, which are measurement streams),;

the logger application writing portions of the plurality of real time measurement data values to respective shared memory sections of a memory (Column 1, lines 49 – 52, where the data values are stored/cached into memory) in the first computer system in a modular fashion (Figure 7, element 2016, where the system uses data structures to store the information obtained from the data feeds);

wherein each of the portions of the plurality of real time data values in each of the respective shared memory sections is independently accessible by a trender application (Column 1, lines 52 – 55, where the trender application is the application that is getting the feed updates by the real time engine).

the trender application generating a query request for a first portion of the plurality of real time measurement data values (Column 26, lines 32 – 38);

the first computer system sending a single message to the second computer system, wherein the single message comprises the first portion of the plurality of real time measurement data values (Column 1, lines 62 – 67, where the logger checks which data values have changed and only sends the recently updated values together to the trending application);

the trender application receiving the single message comprising the first portion of the plurality of real time measurement data values;

the trender application displaying the first portion of the plurality of real time measurement data values (Column 5, lines 22 – 24).

Kerrigan does not explicitly indicate that the tender application is executing in a second computer system and wherein the plurality of real time measurement data values are acquired from a physical system by a measurement device.

Roeber discloses a system with a database application for monitoring and logging real time information (Column 1, lines 43 - 59) and also a tender application operating on a separate system as the database application (Column 6, lines 27 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Roeber's teaching on Kerrigan's system to allow applications on remote systems to gain access to the real-time information measurement streams to perform remote analytical processing on the data in the database.

Victor teaches a real time measurement data value monitoring system that includes logging in a database real time data values and a tender for analyzing those data values (Column 4, lines 53 – 67), wherein the plurality of real time measurement data values are acquired from a physical system by a measurement device (Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Victor's teaching of handling real time values from measurement devices in Kerrigan's system in order to allow Kerrigan's system to more fully monitor a manufacturing process and analyze and resolve potential problems based on those measured values.

Regarding claim 2, Kerrigan teaches the method of claim 1, wherein each of the portions of the plurality of real time measurement data values in each of the respective

shared memory sections is independently accessible by a trender application executing in a second computer system using a single network message (Column 1, lines 62 – 67, where the logger checks which data values have changed and only sends the recently updated values together to the trending application).

Regarding claim 3, Kerrigan teaches the method of claim 1, wherein each of the portions of the plurality of real time measurement data values in each of the respective shared memory sections independently and accurately represents a subset of the measurement stream (Column 1, lines 56 – 60).

Regarding claim 5, Kerrigan teaches the method of claim 4, wherein the single message is a delta page (Column 1, lines 63 – 67, where sending the delta page means sending only the information to the application that has been changed since the last time the application has been updated).

Regarding claim 6, Kerrigan teaches the method of claim 4, wherein the logger application receives the measurement stream and writes the portions of the plurality of real time measurement data values to respective shared memory sections of the memory at a first data rate;

wherein the trender application generates the query request for the first portion of the plurality of real time measurement data values at a second data rate, wherein the second data rate is less than the first data rate (Column 5, line 66 – Column 6, line 3, where the first application runs at a higher priority rate thus having priority and higher speeds than the second rate).

Regarding claim 7, Kerrigan teaches the method of claim 6, wherein the first computer system sending a single message to the tender application comprises:

a first observer software program executing on the first computer system querying the memory for a most recent portion of data at the second data rate (Column 5, line 66 – Column 6, line 3, where the first application runs at a higher priority rate thus having priority and higher speeds than the second rate); and

the first observer software program sending the most recent portion of data to the tender application at the second data rate after said querying the memory (Column 1, lines 52 – 55);

wherein the tender application receiving the single message comprises:

a second observer software program with the tender application receiving the most recent portion of data at the second data rate from the first observer software program (Column 1, lines 63 – 67); and

the second observer software program writing the most recent portion of data to a memory location (Column 5, lines 22 – 24, where the application takes the data values and uses a spread sheet to store and analyze the data).

Kerrigan does not explicitly indicate that the tender application is executing in a second computer system.

Roeber discloses a system with a database application for monitoring and logging real time information (Column 1, lines 43 - 59) and also a tender application operating on a separate system as the database application (Column 6, lines 27 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Roeber's teaching on Kerrigan's system to allow applications on remote systems to gain access to the real-time information measurement streams to perform remote analytical processing on the data in the database.

Regarding claim 8, Kerrigan teaches the method of claim 7, wherein the memory location is a database (Column 6, lines 63 – 66).

Regarding claim 9, Kerrigan teaches the method of claim 1, wherein the trender application is operable to partially replicate the plurality of real time measurement data values comprising the measurement stream (Column 5, lines 22 – 24, where the application takes the data values and uses a spread sheet to store and analyze the data).

Regarding claim 10, Kerrigan teaches the method of claim 1, wherein the logger application writing portions of the plurality of real time measurement data values to respective shared memory sections of a memory in the first computer system in a modular fashion comprises: creating a header record comprising a series of bits, wherein the bits in the header record indicate a changed status of the respective shared memory sections; the logger application writing the header record in the shared memory (Column 6, lines 9 – 23).

Regarding claim 11, Kerrigan teaches a method of logging and trending real time measurement data, the method comprising:

a logger application executing on a first computer system writing a first

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plurality of real time measurement data values (Column 1, lines 44 – 48, where the logger application is the real time engine which interfaces with the data feeds, which are measurement streams) to a first shared memory section in the first computer system during a first time period (Column 1, lines 49 – 52, where the data values are stored/cached into memory);

initiating a trender application;

the trender application executing generating a query request for the first plurality of real time measurement data values and sending the query request to the first computer system (Column 26, lines 32 – 38);

the first computer system sending a single message to the second computer system, wherein the single message comprises the first plurality of real time measurement data values (Column 1, lines 62 – 67, where the logger checks which data values have changed and only sends the recently updated values together to the trending application).

Kerrigan does not explicitly indicate that the trender application is executing in a second computer system and wherein the plurality of real time measurement data values are acquired from a physical system by a measurement device.

Roeber discloses a system with a database application for monitoring and logging real time information (Column 1, lines 43 - 59) and also a tender application operating on a separate system as the database application (Column 6, lines 27 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Roeber's teaching on Kerrigan's system to allow

applications on remote systems to gain access to the real-time information measurement streams to perform remote analytical processing on the data in the database.

Victor teaches a real time measurement data value monitoring system that includes logging in a database real time data values and a trender for analyzing those data values (Column 4, lines 53 – 67), wherein the plurality of real time measurement data values are acquired from a physical system by a measurement device (Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Victor's teaching of handling real time values from measurement devices in Kerrigan's system in order to allow Kerrigan's system to more fully monitor a manufacturing process and analyze and resolve potential problems based on those measured values.

Regarding claim 12, Kerrigan teaches the method of claim 11, further comprising: performing a single write operation in the second computer system to store the first plurality of real time measurement data values in a memory of the second computer system (Column 5, lines 22 – 24, where the application takes the data values and uses a spread sheet to store and analyze the data).

Regarding claim 13, Kerrigan teaches the method of claim 12, wherein said performing a single write operation comprises:

updating a local cache in a memory of the second computer system with the first plurality of real time measurement data values using a single write operation (Column 1, lines 63 – 66).

Regarding claim 14, Kerrigan teaches the method of claim 12, further comprising: the tender application reading the first plurality of real time measurement data values from the memory of the second computer system after said performing a single write operation in the second computer system to store the first plurality of real time measurement data values in a memory of the second computer system (Column 5, lines 22 – 24, where the application takes the data values and uses a spread sheet to store and analyze the data)..

Regarding claim 15, Kerrigan teaches the method of claim 12, wherein the first computer system sending a single message to the tender application comprises the first computer system sending a single network message to the tender application.

Kerrigan does not explicitly indicate that the tender application is executing in a second computer system.

Roeber discloses a system with a database application for monitoring and logging real time information (Column 1, lines 43 - 59) and also a tender application operating on a separate system as the database application (Column 6, lines 27 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Roeber's teaching on Kerrigan's system to allow applications on remote systems to gain access to the real-time information measurement streams to perform remote analytical processing on the data in the database.

Regarding claim 16, Kerrigan teaches the method of claim 12, further comprising: the logger application executing on the first computer system writing second

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and subsequent pluralities of real time measurement data values to second and subsequent shared memory sections in the first computer system during second and subsequent time periods; wherein the first, second and subsequent pluralities of data values affect only what is written to their respective first, second and subsequent shared memory sections (Column 1, line 67 – Column 2, line 9).

Response to Arguments

Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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October 14, 2006


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